

METHODS AND SYSTEMS FOR CONTROLLING LOWER SURFACE SHOCKS

ABSTRACT OF THE DISCLOSURE

Methods and systems for controlling shocks on airfoil lower surfaces are disclosed. An airfoil in accordance with one embodiment of the invention includes an upper surface portion having an upper surface positioned to face generally upwardly during the level flight, and a lower surface portion having a leading edge region, a trailing edge region and a lower surface positioned to face generally downwardly during level flight. A shock control protrusion extends away from the lower surface and is positioned to generate a shock extending away from the lower surface at a least one flight condition.